CUMPUTERWORLD

What do IT workers want most? More than 31,000 of them told us they want fair pay, challenging work and ample opportunities, plus something special to keep them happy, engaged and loyal. Our 15th annual list pinpoints the employers with the right stuff. PAGE 18

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BEST PLACES
TO WORK IN IT 2008



VOL. 42, NOS. 27/28 \$5/COPY

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M NEWS DIGEST

4 Microsoft points to more pros than cons with container-based systems, 1 Cisco's John Chambers predicts that virtual-world technologies will "explode" over time.

6 Windows XP won't disappear from new PCs, despite going into and-of-life mode 1 A new mini refrigeration system could yield major PC cooling advancements.

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20 Capital Group (No. 1)

From lunchtime on the lawn to inte

sive get-to-know-you interviews, this

ent firm has combined its e Celifornia location with the b

of IT team-huilding to earn our too soot

Companies like Quicken Loans (No. 2), Cox Enterprises (No. 17) and Raytheon (No. 65) have figured out how to build and sustain stellar IT workforces. Learn their secrets in our 15th annual report.

41 Scorecards, See which the too 100 offer the most be efits, training and more. Al workers at the too 100.



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34 How We Chose the Barry Places We collected data from the employers, plus satisfaction ratings from more than 31,000 IT workers to rank the top 100 organizations.

41 Score-ards. See which of the top 100 offer the most benefits, training and more. Also, find out what's important to IT workers at the top 100.

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Don Termant

Taming the Beast

ACH YEAR when Computerworld releases its list of the 100 Best Places to Work in IT, certain themes emerge that serve a valuable take-aways for any IT organization that's eager to recruit and retain the best employees. Perhaps because it's been top-of-mind with me lately, the theme that jumped out at me this year is the value that top IT shops place on collaboration and interaction.

I pored over our 2008 Best Places special report not long after having written last week about the need to challenge the notion that IT lends itself to a culture of isolationism. Citing reader comments posted on our Web site in response to an interview on the subject of why women leave IT, I suggested that there is a widely held conviction among IT pros that working in seclusion tends to be, as one reader put it. "the nature of the beast"

Yet when you read about the companies that IT employees see as the best places to work, you find that a culture that isolates individuals is inherently foreign to those places. Consider the following:

Julia King writes that Capital Group, No. 1 on the list, has a "highly collaborative, input-driven, collegial culture."

■ Robert L. Mitchell found that the IT department at Quicken Loans (2) has a "collegial family atmosphere." and that the culture is centered on team-building and favors personal interaction over e-mail and IM exchanges.

■ Thomas Hoffman writes about a "kind of kinship that exists among the 125 IT staffers" at Mount Carmel Health System (9). ■ A core value at VHA

(12) is to encourage employees to be collaborative.

■ USinternetworking
(48) has a high return rate among employees who have left the company for ostensibly greener pastures. Says project manager Bob Dorman: "I truly

missed the camaraderic."

Aetna (78) has a team
bonus program that enables workers to increase
their bonuses based not
only on individual performance, but also on their

■ A culture that isolates individuals is inherently foreign in companies that IT employees rate as the best places to work.

ability to work collaboratively in a team.

■ Steve Reed, a senior systems engineer at Publix Super Markets (79), says the long tenures of his team members have created a camaraderie that's

"second to none."

Eighty-one percent of
the 31,317 IT workers from
this year's 100 Best Places
who responded to the
employee portion of the
survey said they work in a

team-oriented company or department.

Ninety-five percent of those respondents said they have good relationships with their co-workers.

Also noteworthy is that Marriott International (29) offers a leadership development program that provides ongoing mentoring. Such a program flies in the face of comments from other readers I cited in last week's column. "I have never, ever had a mentor," wrote one, who said be'd been in the software industry for over 20 years, and who added that he'd.



never had a role model, either. Wrote another: "If you need a 'mentor' in IT, you weren't cut out for it."

Really? Is that the nature of the beast as well? If you think so, you might consider what Xerox Chairman and CEO Anne Mulcahy has to say on the subject.

In an interview I conducted with Mulcahy earlier this month, she suggested that we need to think of mentoring in a nontraditional way.

"We've got to be broader and wider in terms of the people who we consider mentors." Mulcahy said.

"Mentoring can come from all sort of sources — your peers, people who work for you can be great sources of learning and opportunity." she explained. "One of the most power ful ways for people to get promoted is for there to be a groundswell of people beside you and who work for you that think you're terrific. That's a lot more powerful than having one senior person whose radar

is that you can tame the IT career beast, but you can't do it in isolation. Consider that a lesson learned by the IT pros who work in the best places.

Don Tennant is editorial director of Computerworld

What it all boils down to

screen vou're on."

Don Tennant is editorial director of Computerworld and InfoWorld. Contact him at don_tennant@computerworld.com, and visit his blog at http://blogs.computerworld.com/tennant.

RESPONSES TO: The iPhone vs. IT's Culture of 'No'

June 16, 2008

Frank Hayes writes that users are "champing at the bit to get their new iPbones running all over our systems." OUR? There is the ageold problem, forgetting who you are working for.

■ Submitted by: Anonymous

I've never understood why IT departments that are so afraid product X, Y or Z won't be secure enough for the enterprise insist on using three of the most buggy, insecure products on the market: Windows, Exchange & Internet Explorer. Submitted by D. P. Ray

The typical security department is well meaning but risk averse. IPhones provide incredible usability. We should want to see them in the enterprise. IT as the department of NO is not good for business.

8 Submitted by Anonymous

This article is spot on. I cannot believe how ridiculous analysts are in predicting liPone corporate access failure. I remember when RIM launched the BlackBerry, it took years for large corporations to come close to accepting them. The applications developed for the liPhone will eventually force the business to put pressure on IT. At the end of the day, it is the business that foots the IT bill, so IT really doesn't have the control they so desperately want anyway.

■ Submitted by: Anonymous

RESPONSE TO: Editor's Note: Teaching People to Think Can Be Risky

June 16, 2008

Pulcecez. The initial response gives NO indication of being humorous, and the backpedaling in the follow-up e-mail is totally transparent. Don, you were right the first time: using women as eye candy is demeaning and inappropriate.

8 Submitted by E. Groy

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Beeps, Blips and IT: Making Sense of Sensor Data As sensors profilerate in every industry, companies are struggling to turn the fire hose of real-time data into usable business Five Things You Should Never Tell Your Boss As an IT pro, you know that discretion is the better part of vision. While isosping your beat in the loop is key, there are certain things you don't want to tell him – ever. We asked CROs what kinds of things they never want to hear.

Will Gadgets
Make Knowledge
Obsolete?
Mike Eigen says that soot
or later we'll have to addr
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or later we'll have to address the fact that nearly all knowledge is available to everyone, instantly, a any time. It could free us to do what we do best - think critically and creatively.

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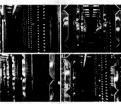
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THE WEEKS AHEAD

JUNE 30: Microsoft plans to stop licensing Windows XP to PC makers and end retail shipments. (See story, page 6.) JULY 1: Oracle is scheduled to hold a webcast on its plans for the middleware it acquired when it bought BEA Systems. JULY 7: Microsoft opens its Worldwide Partner Conference in Houston. The list of speakers includes CEO Steve Ballmer

JULY 11: Apple is due to release its new iPhone 36 model.



Microsoft Sees More Pros Than Cons in Containers

continued its show of enthusiasm for container-based systems last week, with one of its data center officials saving that the modular and portable fT setups have a key role to play in meeting the demand for online services.

But the container-based approach has some potential drawbacks, acknowledged Daniel Costello, Microsoft's director of data center research. For instance, IT vendors are stilf fifling shipping containers with equipment that was designed for traditional data centers. "Moving forward, we need to design systems specifically for this

form factor," Costello said. Other cons include higher costs from server failures if the power to a container is cut off. Costello said during a speech at the Structure 08 conference in San Francisco.

There are also questions about whether containers can be refurbished after their typical IO-year life span, or if they need to be discarded. In addition, the containers now available may not be able to handle servers from multiple vendors because of size differences. Costello said

Robert Mova, a technical facilities manager at one of Stanford University's data centers, also pointed to the

CC & single shipping container can hold as many as 2.000 servers. inability to install servers from different vendors as a drawback. And he noted that the narrow space bctween the racks in containers can make it hard for IT staffers to work side by side.

Nonetheless, Microsoft is convinced that containers will be widely deployed. "We used to talk about a PC on every desk." Costello said, "But how about a data center in every town?"

Microsoft has said it plans to put up to 220 containers. each holding as many as 2,000 servers, on the first floor of a new data center near Chicago, And the company's Virtual Earth online service is already being controlled from a portable data

center located in Colorado. Vendors such as Sun Microsystems Inc. and Rackable Systems Inc. are selling container-based systems now, and IBM said in June that it would start doing so as well.

Buving 2,000 servers preconfigured in a container is more cost-effective than manually installing separate racks of systems, Costello said. He added that Microsoft sees containers as a "primary packaging unit" for systems, not just a way to add extra computing capacity on short notice.

- James Niccolai. IDG News Service

Cisco Chief Bullish on Virtual-World Technology

DUDING A VIDTUAL PROCE conference held in Second Life last week Cisco Systems Inc. CEO John Chambers acknowledged that companies are in "the very very beginning stages" of using virtual-world technolo gies for business purposes. But through his look-alike avatar (see image below) Chambers predicted that the business use of technologies such as Second Life will eventually "explode."

"It's the very front end of a very large wave of opportunities," he said Cisco itself has a substantial presence on Second Life, and it has created an internal virtual world for use by its channel partners. But some analysts and virtual-world proponents see possible signs of trouble for the technology, such as companies shutting down or andoning their virtual lo-

cations because of a lack of

interest among customers. - MATT HAMBLEN



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DATA CENTERS

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But the container-based approach has some potential drawbacks, acknowledged Daniel Costello, Microsoft's director of data center research. For instance, IT vendors are still filling shipping containers with equipment that was designed for traditional data centers, "Moving forward, we need to design systems specifically for this

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FITS NICELY WHERE ALL THOSE SERVERS USED TO BE



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OPERATING SYSTEMS

Microsoft Says No More Reprieves for Windows XP

IckgosoFT CORP.
last week laid to
rest rumors that it
might reconsider its decision to pull Windows XP
from retail shelves and stop
licensing the seven-yearold operating system to PC
makers as of June 30.

makers as of june 30.

In a letter to customers, Bill Veghte, senior vice president of Microsoft's online services and Windows business group, reitercated that the deadline for stopping most sales of XP wouldn't be pushed back any further. The company had already given the operating system a five-month reprieve, after initially planning to pull the plug on

it at the end of January. But the lack of another extension doesn't mean that XP will disappear

from new PCs right away.
For example, Veghte left
the door open a bit to any
computer maker that wants
to continue selling new
PCs with XP preinstalled.
Under a previously announced policy, small
shops that assemble PCs

for customers can continue buying XP until the end of January 2009. Veghte wrote in his letter that the top PC manufacturers will be able to take advantage of that option as well.

But that may not end up happening: The four PC market leaders — Hewlett-Packard Co., Dell Inc., Acer Inc. and Lenovo Group Ltd. — have all effectively called a halt to their gencral sales of XP systems.

However, HP, Dell and Lenovo have said that they will continue to install XP

Professional on at least some of their PCs as a "downgrade" option for buyers of Windows Vista Business and Vista Ultimate

Under Microsoft's licensing policies, the downgrade rights enable users to run XP on new PCs and then switch to Vista later on without having to pay an upgrade fee to the software vendor. However, some PC makers may tack down-

grade fees onto the cost of their systems (see FAQ). Microsoft also said previously that makers of lightweight notebook PCs and low-cost desktops could continue installing XP Home until lune 2010.

- Green Knizer

FAQ: XP FUTURES

Will XP still be available on PCs after June 30? Yes, to an extent. Microsoft is letting PC makers soil off existing system inventories. And users who buy Windows Vista can install XP instead via a "downorade" clause.

How much will it cost to downgrade to XP? That depends. HP isn't adding a downgrade surcharge to the cost of Vista. Dell is offering free downgrades on some systems and charging \$20 or \$50 or others.

How long will Microsoft support XP? The company has said that "mainstream" support will end next April; fee-based "extended" support is due to continue until April 2014.

Short Takes

Oracle Corp. has disclosed that it may seek damages of St billion or more in its lawsuit apainst SAP AG and its TomorrowNow Inc. services unit. The March 2007 lawsuit charges that TomorrowNow workers illegally downloaded data from Oracle's support Web eith.

SAP has agreed to pay iz Technologies Inc., a maker of supply chain software, S83.3 million to settle a patent lawsuit that iz filed against the ERP vendor in 2006. In addition, the firms agreed to license certain technologies to each other.

Yahoo Inc. said it has fixed a vulnorability in its Web mail site that could allow a hacker to get access to personal accounts. Cenzic Inc., a Web application security company, discovered the cross-site scripting flaw.

Progress Software Corp. plans to buy Dublinbased Iona Technologies PLC, a maker of SOA tools, for about \$162 million. The deal is set to close in

HARDWARE

Purdue Developing Tiny Cooling System for PCs

RESEARCHERS AT Purdue University last week said they have developed a tiny refrigeration system that could be used to cool laptop and desktop computers within two years.

The technology should enable PC manufacturers to improve the cooling systems in traditional laptops and build much smaller computers, said Suresh

Garimella, a professor of mechanical engineering at Purdue.
"Traditionally, you use a lan to blow air on a chip - room temperature air," said Garimella. "If I could push chilled air onto the chip, then I get a lot more cooling." The devices are designed to dramatically increase the amount of heat that can be removed

from a computer, he added.



Suresh Garimella (right) and colleague Eckhard Groll work on their miniature cooling system.

The system pumps refrigerants through tiny compressors and tubing. The technology could be integrated into a microprocessor, or it could replace a computer's traditional air-cooled heat sink. The new cooling technique will probably be used first in gaming systems and then in high-end laptops,

Garimella projected.

Dan Dids, an analyst at Gabriel
Consulting Group Inc., noted
that "keeping the heat down is
crucially important in chips. It's
a big deal, and something that
manufacturers are dealing with
from supercomputers on down."

– SHARON GALIDIN



OPERATING SYSTEMS

Microsoft Savs No More Reprieves for Windows XP

ICROSOFT CORP last week laid to rest rumors that it might reconsider its decision to pull Windows XP from retail shelves and stop licensing the seven-yearold operating system to PC

makers as of June 30. In a letter to customers Rill Veghte senior vice president of Microsoft's online services and Windows business group, reiterated that the deadline for stopping most sales of XP wouldn't be pushed back any further. The company had already given the oper ating system a five-month reprieve, after initially planning to pull the plug on it at the end of January.

But the lack of another extension doesn't mean that XP will disappear from new PCs right away. For example, Veghte left the door open a bit to any computer maker that wants to continue selling new PCs with XP preinstalled

Under a previously an-

nounced policy, small

shops that assemble PCs

for customers can contin buying XP until the end of January 2009, Veghte wrote in his letter that the ton PC manufacturers will be able to take advantage of

that option as well. But that may not end up happening: The four PC market leaders - Hewlett-Packard Co., Dell Inc., Acer Inc. and Lenovo Group

Ltd. — have all effectively called a halt to their general sales of XP systems. However, HP. Dell and I enough ave said that they will continue to install XP

FAO: XP FUTURES

Will XP still be available on PCs after June 30? Yes, to an extent, Microsoft is letting PC makers sell off existing system tories. And users who buy Windows Vista can install XP instead via a "downgrade" clause.

How much will it cost to wngrade to XP? That depends. HP isn't adding

Professional on at least some of their PCs as a "downgrade" option for buyers of Windows Vieta Rusiness and Vista Ultimate

Under Microsoft's licensing policies, the downgrade rights enable users to run XP on new PCs and then switch to Vista later on without having to pay an upgrade fee to the software vendor. However, some PC makers may tack downgrade fees onto the cost of

their systems (see FAO). Microsoft also said previously that makers of lightweight notebook

PCs and low-cost desktops could continue installing XP Home until June 2010. - Green Keizer

a downgrade surcharge to

the cost of Vista. Deli is offering free downgrades on some systems and charging \$20 or \$50 on others.

How long will Microsoft support XP? The company has said that "mai stream" support will end next April: fee-based "extended" support is due to continue until April 2014.

Short

closed that it may seek damages of \$1 billion or more in its lawsuit against

unit. The March 2007 lawsuit charges that TomorrowNow workers illegally downloaded data Website

has agreed to gay

maker of supply chain software \$83.3 million to settle a patent lawsuit that i2 filed against the ERP vendor in 2006. In addi tion, the hrms agreed to license certain technolo-

fixed a vulnerability in its Web mail site that could allow a backer to Web application security company, discovered the

plans to buy Dublin

for about \$162 million. The deal is set to close in

HARDWARE

Purdue Developing Tiny Cooling System for PCs

RESEARCHERS AT Purdue Unirsity last week said they have ped a tiny refrigoration system that could be used to cool laptop and desktop com

puters within two years. The technology should en PC manufacturers to improv the cooling systems in tra tional laptops and build much smaller computers, said Suresh

nical engineering at Purdu "Traditionally, you use a fan to blow air on a chip - room ter perature air," said Garimella. "If uld push chilled air onto the chip, then I get a lot more cool ing." The devices are designed to tically increase the ar of heat that can be removed

from a computer, he added.



and tubing. The tec ogy could be integrated into a microprocessor, or it could replace a computer's tradition ir-cooled heat sink. The new ling technique will probabl be used first in gaming syst and then in high-end laptops arimella projected.

Dan Olds, an analyst at Gabrie Consulting Group Inc., noted sping the heat down is crucially important in chips. It's a big deal, and something that facturers are dealing wit from supercomputers on de



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MOBILE & WIRELESS

Insurer Offering Health Records on Cell Phones

LUE CROSS of Northeastern Pennsylvania is betting that its customers will want to keep complex personal health records un their cell phones, especially when they have to keep track of multiple doctors and medications.

The health insurer last month began rulling out a mobile application developed by AllOne Health Group Inc., a health care systems integrator, and Diversinet Corp., a maker of tools to activate and download mobile applications.

Drew Palin, chief development officer at the Blue Cross affiliate in Wilkes-Barre, Pa., said that so far, less than 10% of the 600,000 eligible users have tried the application, which is free to members.

Palin said the understands that users might have questions about the application's privacy, but he contended that the benefits of the system outweigh the risks. And Blue Cross shares those concerns, he added, noting that the data in the system is encrypted and dual-factor authentication techniques are used to

tion techniques are used to control access to that data. Most of those who have used the mobile system so far are typical early adopters who are upen to new technulogies and have come to terms with the issue of privacy, said Palin.

privacy, said Pain.

Craig Mathias, an analyst at Farpoint Group, said that despite concerns about personal privacy, "all information will eventually be

online and mobile."

— Mott Hamblen



The Internet Corporation for Assigned Names and Numbers voted to relax its rules on generic top-level domain names. ICANN's action means companies eventually could set up domains ending in their own names. Microsoft Corp. released

Hyper-V, the server virtu-

alization software that it hopes will help it woo users away from VMware Inc.

FOUR YEARS AGO:
MediaLive International Inc.
canceled the 2004 Comdex
trade show because of a
lack of support from key IT
vendors. The once-massive
show was never revived.

Global Dispatches

NEC, Tyco Plan Japan-U.S. Cable 10KYO - NEC Corp., based here, and Morristown, N.J. based Tyco Telecommunications as tweek said they have begun joint planning work on the Unity undersea high-speed fiber-optic ink between the

U.S. and Japan.
The S300 million effort is funded by Google Inc., Bharti Airtel in New Delhi, Olobal Transit Communications in Kuala Lampur, KDDI Corp. in Tokyo, Pacnet Internet in Singapore, and Singapore. It ut

The cable will initially contain dual optical-fiber cables for both primary service and backup. It will link Chikura, located off the Japanese coast near Tokyo, to Los Angeles and other sites on the West Coast. Martyn Williams, IDG News Service

Nokia to Acquire Symbian, Open Its Source Code

last week announced plans to acquire the 52% stake in Symbian Ltd. that it does not already own, for 6264 million (\$415 million U.S.). Once it completes the acqui

sition, Nokia plans to release the Symbian software to the open-source community. The cell phone maker said that Sony Ericsson Mobile Communications AB, LM

Communications AB, LM
Ericsson Telephone Co., Panasonic Mobile Communications
Co. and Siemens AB have all
agreed to sell their shares in
Symbian, a London-based maker of an operating system for mobile phones.

The final shareholder, Samsung Electronics Co., is expected to follow suit. Mikael Ricknils, IDG News Service, and Matt Hamblen, Computerworld

BRIEFLY NOTED

Seoul-based Samsung Electronics and Munich-based Saltronic AD have opened a \$1 billion (U.S.) factory in Singapore to produce 300mm silicon wafers for the chip Industry. The joint venture, called Siltronic Samsung Wafer, will produce 300,000 wafers each month and emple 800 people by 2010.

Part Net Co.







Insurer Offering Health Records on Cell Phones

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BRIEFLY NOTED ul-based Sam nic A6 have ope v. The joint ve 800 people by 2010. Dan Hystolt.





You can't anticipate every problem. But I meison Network Power and it liebeit prover and cooling technologies can help you create an IT infrastructur the ready for anything unplanned outages, unpredictable growth or inverse clother hordomes.

One example is the **Liebert NX**, a software scalable UPS that can double in capacits Authorit adding or modifying hardware. Download our white paper, Programp Change in the Data Center, and discover what Liebert technologies can do Jon your operating flexibility, at flexibility flebert.com.

Liebert flexibility



Environmen Impact: IT Sees the Light on Green

For some organizations, reducing the energy consumed by IT equipment is becoming a selling point with customers and even potential new hires.

By Patrick Thibodeau

Computing

HEN ENTERPRISE
Rent-A-Car Co.
completes a
move from PCs
to thin clients this summer,
as part of the rollout of a
new rental transaction system, it expects to cut internal energy consumption by
Smillion kilowatt-beauts

5 million kilowate-bours. That will save about \$500,000 annually while reducing the company's carbon dioxide emissions by 6.5 million pounds each year, according to Enterprise officials. Energy costs and consumption were considerations when planning for the new system began earlier in the decade. But they have grown in importance for Enterprise — so much so that the commany

issued a press release in April to let the public know how its shift to thin clients would help the environment

That Enterprise would trumpet the environmental benefits of an IT upgrade says something about how going green is now viewed as a potential competitive advantage for companies. And the increasing focus on green computing as marketing tool is giving marketing tool is giving something to make the case for steps such as upgrading to more efficient technologies, virtualizing servers and

consolidating systems.

For instance, environmental concerns are reshaping Enterprise's approach to IT well beyond its installation of Hewlett-Packard thin clients. Six months ago, the St. Louis-based company set up a committee specifically to evaluate the environmental and energy-usage armifi-

cations of IT purchases. It also has measured the amount of power consumed by the servers, networking devices and other IT equipment in its manin data center. Using a metric developed by The Green Grid, a vendor consortium that focuses on IT energy efficiency, Enterprise found that only 40% of the energy consumed within the data center was being used by IT equipment, as opposed to air handlers, as opposed to air handlers, as opposed to air handlers, the same content of the construction of the construc

cooling systems and unin-

terruptible power supplies.

By turning off unused equipment and better managing its cooling processes, the company increased that percentage to 44%. "Just by doing a few small things, we were able to move our energy efficiency up significantly; said Jim Miller, assistant vice president of IT. Now Enterprise is evaluating more extensive, and more expensive, efforts to improve the cooling systems in the data center, he added.

The municipal government in San Francisco is taking an approach similar to the one at Enterprise, as part of an effort to meet an IT energy-efficiency mandate issued by Mayor Gavin Newsom in February.

At this point, San Francis-

co officials don't even know exactly how much the city spends to power its IT and communications equipment. But that didn't stop Newsom from promising that the government would reduce its IT-related emissions of greenhouse gases by 24% within four years.

Chris Vein, the city's CIO, is currently overseeing a project in which IT staffers are measuring the energy-usage levels of everything with a plug in some municipal buildings, in an effort to develop estimates that could be applied citywide.

be applied citywide.

Newsom's mandate also
calls for Vein to develop a
framework for considering
the environmental impact of
new technologies. One result is that desktop printers
are out and network printers
are in. The idea, Vein and
the control of the control
that is not a superior of the con

In addition, San Francisco is moving from a three-year refresh cycle on its laptops to a four-year cycle in order to keep them out of landfills for a longer period of time. And Newsom ordered that as of April I this year. all new PCs and monitors must have at least a silver rating under the Electronic Product Environmental Assessment Tool standard. with a gold rating being preferred, EPEAT, which was developed by the Green Electronics Council in Portland. Ore., is used to rate systems on the basis of their energy efficiency and use of environmentally friendly materials.

Vein, who was appointed as San Francisco's first CIO two years ago, hopes that the green computing push will also help him achieve his wider IT goals. He is moving to consolidate data centers, standardize technologies and increase the use of virtualization and online services — no easy task in a government with a history of departmental independence when it comes to IT.

At some organizations. the motivations for moving to greener systems are still grounded in the need to solve data center problems. not driven by environmental factors or marketing considerations, For instance, Denis Muras, a systems administrator at a medical facility that he asked not be identified. said his employer is installing hlade servers and retiring older, less energy-efficient systems based on HP's discontinued Alpha processor.

Just by doing a few small things, we were able to move our energy efficiency up significantly.

JIM MILLER, ASSISTANT VICE PRESIDENT OF IT, ENTERPRISE RENT-A-CAR CO.

Although the new servers are expected to generate savings on energy costs, Muras said the upgrades are being driven by a need to fit more computing capacity into a data center that's short on available space.

short on available space.

Moreover, using technologies that can increase the energy efficiency of systems isn't always feasible.

Iim Gordon, a senior

San Francisco Aims to Be Green IT City by the Bay

AN FRANCISCO CIO Chris Voin was old achool in his office hab its, often printing out even his alls – until he removed his ktop printer. That forced him to start using a network printer down the hall, and the alk was inconvenient eno to discourage him from printing as much as he used to. Now Youn hopes that a wid nce on network printers, plus the deployment of a centralized document manment system and tools for ng and sharing PDFs, will help San Francisco's icipal government m al of red ing paper use in

its offices by 20%. In total, the city uses about 215 million sheets of paper year, at a cost of \$946,000 for the paper alone. The IT department recently started

a pilot project to assess the effectiveness of the planned technology changes, plus the potential impact on server workloads as more document are sent electronically. Another pilot project will evaluat the use of centralized power management tools for PCs.

Those are just two of the steps that San Francisco plan to take as part of an effort to make its IT operations more environmentally friendly, as mandated by Mayor Gavin Newson. For Vala, though, the biggest challenge san't the IT changes, but getting city workers to accept them.

"By job as CIO len't really about technology; it's about creamizational change," Voln said. "You really have to be creative in your marketing and salling of these concepts."

— PATRICK THEODEAU

network engineer at Computer Marketing Group Inc., which resells systems and manages them for customeers, said that some of the Charlotte, N.C.-based company's clients would like to reduce their energy costs by using centralized power management capabilities to put their PCs into sleep mode during off-hours.

mode during off-hours.
But, Gordon added, there's
a problem: When systems
running Windows XP "go
to sleep, they don't always
wake up" automatically.
That can be a problem when
IT workers try to apply software updates in the over-

night hours, he said.
Despite such hudles, Bob
Carson, an IT manager at
Reynolds Electric Co., an
electrical contractor and IT
services firm in Lima, Ohio,
said he has seen a change
in attitude toward energy
efficiency among his IT customers over the past year.

At first, "a lot of my clients saw the green thing as an irritation." Carson said. But now they're measuring the energy consumption of systems as well as their total TI power costs, and using the data as a tool for selling business managers on the merits of new IT approaches and investments in energysaving technologies. "Now," Carson said, "it's not just my ITI) budge; it's our budget."

Meanwhile, Enterprise inth' just routing its green computing exploits to the general public. The committee that's evaluating the environmental impact of new technologies includes a representative from the human resources department. Miller said the company has found that green computing is a strong selling point in attracting IT ip hyprospects, and it wants HR to know what it's doing in that area.

EARLY SIX and a half years ago, in the aftermath of the 9/11 terrorist attacks and amid concerns about growing online security threats, Bill Gates sent out a company-wide e-mail at Microsoft Corp. that some people consider his most important internal mem ever.

Titled "Trustworthy Computing," the Jan. 15, 2002, missive stressed the need for Microsoft to focus on building more-secure products. "As an industry leader, we can and must do better." Gates wrote.

As Gates officially retires from his job at Microsoft, he leaves behind a company that by most accounts is doing better on security. But fully convincing users of that is an elasive goal. And increasing competition from Web 2.0 and software-asa-service (Saas) vendors is posing new challenges for the security development model implemented after Gates wrote his memo.

The memo set in motion a series of fundamental changes at Microsoft. It led to the creation of the company's Security Development Lifecycle (SDL) process, which was meant to ensure that flaws would be caught during development - not after products were released. Millions of dollars were spent to put every developer through SDL training, and work on Windows was shut down for 10 weeks while the training was done.

The marching orders issued by Gates also resulted in the monthly "Patch Tuesday" release schedule that Microsoft adopted in October 2003. In addition, his memo set the tone for a gradual thawing of the once icy relationship between the

Microsoft Can't Claim Victory in Security Battle

In 2002, Bill Gates changed the way Microsoft develops software. But the company

has had a harder time altering users' perceptions of how secure its products are.

By Jaikumar Vijayan

company and external security researchers.

Prior to penning the memo, "Gates was the biggest reason why Microsoft was having so many security problems," Gartner Inc. analyst John Pescatore said. "He was a market-driven guy who said that [customers] didn't want more secu-

rity but more ease of use."
Pescatore added that
Gates' "epiphany" drove
changes not just at the technical level, but also in how
Microsoft evaluated product
managers, reviewed product
performance internally and

decided that software was ready to be released.

Despite all that has been done, though, it has been harder than Microsoft expected to convince corporate buyers that the company's software is in fact more secure than it used to be, said Khalid Kark, an analyst at Forrester Research Inc.

That's true in large part because numerous holes continue to be found in Microsoft products — even ones that have gone through the SDL process from the start, such as Windows Vista. This month, for example, Microsoft issued seven patches to fix a total of 10 security flaws. In February, it released 17 patches, the most since the previous February.

"I think the whole environment has gotten better," said David Jordan, chief information security officer for the Arlington County government in Virginia. "But we still have "Terrible Tuesdays," and sometimes patches to fix patches,"

In his eyes, the problem is that by the time Gates took action, Microsoft was simply too big to quickly put top-down changes into effect. Gates "did the right thing." Jordan said. "But did

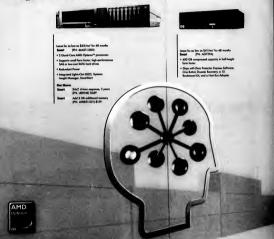
he do it soon enough? No."
There is general agreement that bugs are inevitable and that Microsoft's massive user base makes it a big target for attackers. But the steady drumbeat of patch releases has tarnished the company's efforts to improve its security standing, according to Kark.

"I think they expected an overnight shift in terms of perception. It didn't happen," he said. "It's only now that we're starting to see Microsoft being recognized as a company that under-

stands security issues."
Pescatore said a potential
new problem is that the SDL
process may not be flexible
enough for the Web 2.0 and
SaaS models. But, he added,
Microsoft has yet come out
with 'a lighter-weight version of SDL for products on
a faster life cycle."

And not everyone is convinced that Microsoft has done enough. David Rice, author of the book Geekonomics: The Real Cost of Insecure Software, said he thinks that security has only gone from being a "tertiary issue" at Microsoft to being an "ancillary" one. The HP Problem D1385 GS Server, featuring efficient Quad Core AMD OpteronTM processors, lets you manage it from your office in Son Diego while it sits in Boston, Remote Management (BC2) lets you control, reboot and troubleshoot from procincity anywhere, even when he server is off.

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manufacture and the form of the first part of th

SURE H'S A LITTLE TOUGH ROLLING OUT THIN CLIENTS IN SOME DEPARTMENTS

Year of the Thin Client?

2008 IS THE YEAR that CIOs will finally embrace thin clients. So argues Stephen Yeo, worldwide marketing director at thin-client maker IGEL Technology GmbH in Bremen, Germany. He backs up that assertion with five reasons.

First, virtual PCs can now run all the software users need. Thin clients tethered to terminal services technology are unable

all programs on the market Yeo estimates. But with virtual PCs, that harrier is eliminated. Second, compatibility problems

to run about 10% of

with PC peripherals are a thing of the past. Yeo claims. Thin clients today have industrystandard connectors such as USB.

Third, a thin client, complete with its server and associated components, uses less than half the energy of a PC, according to the Fraunhofer

Institute, also in Bremen. Fourth, unless you're doing video editing on your desktop, anything beyond a quad-core CPU is overkill. But multicore CPUs are great for vir-

tual PCs and thin clients. Yeo asserts. Finally, IT has plenty of Windows XP licenses that can be

moved to virtual environments. CIOs get to keep a beloved operating system and do some software recycling in the process.

Those may he reason enough to explain why Credit Suisse upped its growth projection for thin clients in 2008. And maybe, just maybe, a thin client will be on a desktop near you soon - perhaps your own.

Persistent PC Goodness If thin clients don't march onto your

companies' desktops this year, you can at least undo all the dumb things users do, from downloading duhious files to changing critical settings, claims Ken Fitzpatrick, chief marketing officer at Persystent Technology Corp. in Tampa, Fla.

The Persystent Enterprise Suite (PES) works during the prehoot stage. According to Fitzpatrick, an agent in the boot process takes a quick glance into a partition that's invisible to the end user to see if anything has changed. If something is different from what you had set. PES reverts the PC to

the desired state PFS never touches user data, "It guarantees a healthy PC every time you turn it on," hoasts Fitzpatrick, And PES works whether a user is online or off.

Next month, Persystent will add support for Windows Vista and offer inte-



gration with whole-disk encryption tools. Fitzpatrick says the company plans support for Linux, Macintosh and other operating systems, Pricing starts at \$20 per year per device.

On-Demand Integration Simon Peel acknowledges that

"90% of SaaS integration is with on-premises applications," but he still sees a need for an appliance for SaaS-to-SaaS integration.

Peel is senior vice president of marketing and husiness strategy at Cast Iron Systems Inc., which makes appliances that are preconfigured for app-to-app integration. This month,

the Mountain View, Calif., company released one that links your Salesforce.com service to your NetSuite on-demand app.

The appliance comes ready with API compatibility between the services. If you've done customization to either, Cast Iron's visual-mapping tool helps link those changes.

Whether you run it in your data center or as a service, it starts at \$1,500 per month.



THE GRILL

IT in the Line of Fire

IT pros serving in Iraq and Afghanistan talk about battling heat, 'moon dust' and mortar attacks to keep the lines of communication open.

Think your work is stressful? Try getting a network restored after it's been brought down by a mortar attack

- in 110-degree heat That's life in Iraa and Afehanistan for the members of the U.S. military who are in charge of communications, networks and

other IT systems. The desert environment presents challenges beyond the harsh realities of war, taxing both the equipment and the men and women who

Here's a status report from U.S. Air Force Lt. Col. Don Fielden and U.S.



in Bagram, the largest base in Afghanistan. It's in a highplains desert at 5.000

feet. The temperatures range from 0 degrees [Fahrenheit] in the winter to IIO degrees in the summer. Fielden: I'm at Balad Air Base, the

in Iraq and Afghani-

stan, respectively.

Let's start with your

ecation, Dedham:

Until frecentlyl, I was

largest air base in Iraq. It's pretty flat and near sea level. Temperatures here range from 35 degrees in winter to 140

Title: Lieutenant colonel

Organization: U.S. Army

on: Rec

he Army right out of , and I've been in IT fo in the Army for almost 20 years."

Name: Don Fielden

Title: Lieutenant colonel Organization: U.S. Air Force

stion: Balad Air Base, Irao

How he got where he is: "I w d radio as a kid. I o in the Air Force in 1984 a y I went off to col to get into IT. I've be

degrees in summer. It's very dusty and often windy. You know how stateside, when the wind is blowing, it makes it feel cooler? Here in Balad, when the wind's blowing, it feels a lot hotter.

Army Lt. Col. Pat Dedham, who have served How long have you served in the Middle East, and what is your role? Dedham: I

was in Afghanistan for 15 months. As the director of comms (communicationsl and IT for the Joint Task Force. I had oversight of all FT and communications for U.S. forces.

Fielden: I've been in Iraq eight months so far, and I'll be out here for four more. I'm the commanding officer of the communications squadron here, which is the home of the 332nd Air Expeditionary Wing. Our wing also comprises other units that are scattered throughout Iraq, and I play a role in ensuring command-and-control connectivity to our other Air Force locations.



You know how state-side, when the wind is blowing, it makes it feel cooler? Here in Balad, when the wind's blowing, it feels a lot hotter.

What equipment are you working with? Flotien: We have a typical network control center that houses our file servers, routers and internet swinches, and another control center that handles circuit routing. And we have our satellite communication equipment and associated vans established on-site as well. We have Dell servers, Sun servers—the popular brands. It's a typical Air Force communications squadron, but

operating in a forward location.

Dedham: We have a Cisco-hased router network. On the transmission

side, we're predominantly satellitehased, with everything from very small terminals — 2.4-meter dishes — up to huge dishes, in about 93 different locations. On the server side, it's a comhination of Dell and Sun — the majority is Dell throughout Afshanistan.

Are mortar and rocket attacks an issue? Fieldem: It's getting better. When I came out here last summer, it seemed like we were always hitting the deck. The attacks came several times a day and several times a night. But as the situation is stabilizing out here, the number of attacks has heen reduced by about 50%.

Dedham: Just taking Bagram first, we had five different attacks in the 15 months I was there. One was a sulcide bomber at the entry control point, and the other four were random mortar and RPG (rocket-propelled grenade) attacks on the hase, none of which ever affected communications.

antected communication.
We did have forward operating.
We did have forward operating.
Commercity because of a direct hit—on a stellite dish on two occasions, and on a generator. The command post nodes—little vans with satellite dishes on them and radio equipment associated with the satellite dishe—were destroyed because of shraped from either RVPs, utickle bomber or random moritar stack. We don't think the enether stack with the satellite dish—post, we think it was point a back by the post,
we think it was point as back by the post,

How long does it take you to get a forward base back up when it's hift 'Bordmar. In those three cases, they had to switch over to 'single-channel communications'— that's just radio. Tactical satellite radio or high-frequency communications had to wait until their network connectivity was re-established, work connectivity was re-established. So hours. It required us to a laiff new terminals to those sites in a sling underneath a belicotter.

A lot of the terminals we use for network connectivity aren't in a van; they're modular cases that can be lifted hy helicopter. They're very small, hut they can provide network connectivity to those very small outposts.

What's the most challenging aspect of IT

in your environments? Fielden: The heat in the spring and summertime, and the dust. One of our regular duties is to change the filters in the air conditioners and then dust. And dust. And when you think you're done, dust one more time. The vacuum cleaner is a critical niece of engineer of engineer of engineers of engineers.

Bedham: The dust is a huge problem. We refer to it as "moon dust" — it's not like the dust you might experience in the United States.

We had a call manager go bad one day, it had been in the system for a little over a year, and when we opened it up, there were literally 4 inches of moon dust cowring all the circuit boards. The heat huildup caused a portion of one of the circuit cards to shortcircuit and melt. Besides that, the dust gets into the fans, and they start to fail, which prevents the equipment from being cooled, which gauses it to fail.

Dirty power Ispikes and drops in electricity] is a lunge issue, because you end up going through parts and life-cycling equipment a lot quicker than you do when you're in a nice, clean environment like the States. Routers go bad, switches go had, just because of unregulated power, power surges and things like that.

What have you harmed from your IT experiences over there? Fielden: That given the right people and the right motivation, you can make IT work anywhere in the world. Anywhere we need to have a U.S. military presence, we can get a robust information technology infrastructure in place.

up and running, reliably providing services we're used to back stateside, very quickly.

pery quickly.

Dedham: I've learned now significant informa-

how significant information systems and networks can be in flattening information so it can get to everyone right away without having to follow any kind of bureaucratic hi-

erarchy.

In a World War II movie, you see information move from team to squad to platoon to company to hattalion to hrigade to division. With IT, you can get it to everyhody in real time. It makes a huge difference on the battlefield.

- Interview by Jake Widman

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INTERSYSTEMS

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BEST PLACES TO WORK IN IT 2008

The more than 31,000 IT workers we surveyed told

us they want fair paychecks, challenging work and ample opportunities. Read about the 100 organizations, from points east to west. that deliver the goods.

WHY THE TOP 5 ROCK NO 1 The Canital Group Cos.

Money and advice for retirement planning

MO. 2 Quicken Loans Inc. Interest-free loans for home

PC purchases

NO. 3 General Mills Inc. Recognition programs and awards ceremonies

NO. 4 The Mitre Corp. Seven training days each vear for all IT staffers

NO. 5 SAS Institute Inc. Flexible work schedules and comp time

O SORT THE TOP 100 list based on the criteria that matter most to you O SEE WHICH ORGANIZATIONS offer the best benefits. training and more.

C SHARE YOUR VIEWS

fighting ancient warriors. easy.

1. Alert the mailroom.





3. Use what's at hand





fighting security threats, easier.

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HE CAPITAL

8.053

BY JULIA KING

F YOU'RE an IT worker who thrives on competing with colleagues, takes pride in acquiring higher titles and believes that working crazy hours to meet a tight deadline is just part of the job. The Capital Group Cos. is the last place you'd want to

work - and the last place that's likely to hire you. But if you want a com-GROUP COS petitive salary, flexible vorking arrangements, a supportive and nurturing NO. 3 FOR DIVERSITY manager, extensive health NO 8 FOR TRAINING and retirement benefits. even more extensive training and growth opportunities, and three weeks of vacation time to start, yet hired at this 77-year-old privately held investment company, and you'll most

likely want to spend your career there. That's Vianney Stoyall's plan,

The company is so big and so open had you can do anything," says Stovall, the was bired as a desktop support associate a little over three years ago and s now a project management coordinator at Capital Group's headquarters in Irvine Calit.

As an IT employer, Capital Group adheres to the same long-term philosophy and strategy that it applies to financial investments. It wants and expects workers to grow with the company over time. This makes biring people who fit well with the company's

highly collaborative. input-driven, collegal culture absolutely critical. It also helps explain the company's comprehensive interviewing process. Even candidates for a inmior-level position must meet with six or seven staffers, each one focusing on a different area. such as strategy, communications or technical knowledge, Julie St. John. who 15 months are was

recruited from her CIO post at Eannie Mae, went through 40 interviews before joining the company as CIO and president of its investment technology group

"Capital is very careful in their hiring. We're also very purposeful about



how we think about interviewing," St. John says, "What I found in the interviews is incredible intellectual bandwidth homility and integrity" among Capital Group employees, she says,

That risorous attention to cultural fit is one of the thines many people like best about working there. Employees regularly eat lunch together on the lawn or sit around the fountain that is the centerpiece of the new 40-acre Irvine campus. For those who'd like to sit and work in the Southern California sunshine, there is wireless access throughout the campus.

NO BLAME GAME

What's impane about Capital is the very strong relationship between business and LL" says Clay Sterzik, a 15-year veteran of the 11 organization "They take the wins together, and they take the knocks together. You never hear anyone in the business say. They blew it in LE. That's what makes morate so bigh on the LL side.

Rama Iver, who manages the technology team that supports Capital's mutual fund activities, echoes this view." There are any number of times a project can go south, even with the best of intentions. Almost never has the business pointed at IT and said LE screwed up," says Iver.

But what really appeals to him is Capital Group's long-term view about investing in technology

"I one-term is connected with whatever we do? Iver says. As a result, he notes. IT is able to invest in technology and build systems that Capital Group might not need immediately but will need in the future. In the meantime



Capital Group

This investment company. earned the top spot by cultivating its IT workers. **BY JULIA KING**

FOR DIVERSITY

FOR TRAINING

F YOU'RE an IT worker who thrives on competing with colleagues, takes pride in acquiring higher titles and believes that working crazy hours to meet a tight dead-line is just part of the job.
The Capital Group Cos. is the last place you'd want to work — and the last place you'd want to

work — and the last place that's likely to hire you. But if you want a competitive salary, flexible working arrangements, a supportive and nurturing manager, extensive bealth and retirement benefits, even more extensive trailinties, and three weeks of vacation time to start, get hired at this 77-vear-old

privately held investment

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"Long-term is connected with whatever we do," Iyer says. As a result, be notes, IT is able to invest in technology and build systems that Capital Group might not need immediately but will need in the future. In the meantime, the IT teams can build them right the



The Canital Group IT team Chris Colwell and Janetta Stanek

first time, he says. "This is what makes my job a lot more fun." Iver says. That measured approach to technol-

ogy investments and projects makes for better work/life balance, says Maurice Heffernan, who has been with the company just under two years and leads the investment systems group. "Because of the long-term focus.

there isn't this overly tactical emphasis on bursts of energy and stretches of long hours as the fallback strategy to get something done quickly." Heffernan says. "On a typical day, I wrap up at 5, get home to see my daughter and read her a bedtime story. And then, if I need to, I can get back online and talk to people in Singapore and Tokyo."

Capital Group invests generously and regularly in its roughly 1,600 IT workers, who, like a majority of Capital Group's 8,000 employees worldwide. rate the company's Master Retirement Plan (MRP) as one of its best benefits. The company establishes an account

for each employee, or "associate," as they're known, as soon as they're hired. Every year, Capital Group contributes an amount equal to 15% of each associate's total annual cash compensation (including bonuses) to the account, up to the statutory limit of \$33,750. Employees are fully vested in their MRP accounts after six years.

"The whole retirement-benefit package is phenomenal. I appreciate that more and more as I grow here at Capital," says Patricia Ong, a senior business systems analyst who has worked at Capital Group for 15 years.

HERE TO STAY

Not surprisingly, "people who come to Capital tend to stay at Capital," says St. John. The employee attrition rate is about 4% annually in IT.

People who come to Capital Group to work in IT are also likely to move into various roles around the company. since it has a track record of discover-

ing and promoting talent from within. Each year, the company budgets \$3,500 per IT employee for in-person training. IT workers are also reimbursed up to \$5,000 annually for technical certifications they earn. All employees are eligible for 100% tuition reimbursement. up to \$10,000 annually.

Right now, Sterzik is especially jazzed about the opportunity to help rewrite Capital Group's equity trading system. "We're in the first phase of rolling the system out. It's a brandnew, custom-built, state-of-the-art equity trading system, and it's the slickest system I've ever seen in my life," he says, "The team has done a great job."

Stovall, meanwhile, is considering

her next career move at Capital Group. "I definitely see this as a place to be long term, because there are so many directions I can take and areas I can go



Quicken Loans Inc.

helps drive innovation

It's not the barbecues. Wii Bowling and Guitar Hero or even the free tickets to Cleveland Cavaliers s and concerts at the ken I name Arrena Those things aren't what make ken Loans' IT depart a great place to work. The perks are nice, says softwar architect Matt Cowie, but it's the collegial atmosphere, job flexibility and opportunities to work with leading-edge techologies that keep him from ing elsewhere.

Team-building begins in the office, where the culture favors personal interaction over more impersonal e-mail or IM aschanges. "We don't throw things over the wall. We base a lot of what we do on face-to-face communications," Cowle says. The IT staff works

as a team and also plays as a team. Outlings have included a bus trip to the 2007 MBA finals. Last year, IT managers rewarded staffers with more than 3,000 tickets to sporting events and concerts.

Even the offices of this Livenia, Mich.-based online mortgage lender are unique. "It's not your normal drab, gray environment," Covie says. The Cleveland office was designed to look like a baskerball court. (Quicken Loans' CEO owns the Cavaliers baskerball team.)

Managers encourage innovation, even for ideas that may seem crazy at first, such as when a staffer demonstrated how to use a Wil controller to manipulate displays at meetings. Says Covier. The leadership gives us the ability to do that. I can't imagine anywhere else I'd want to be."

- ROBERT L. MITCHELL

3 MILLS INC

Known for popular brands such as Yoplait and Wheaties, Minneapolis-based General Mills keeps finding

A 10-member task force of IT employees created an Excellence in Technology award, which encourages recognition of day to-day activities. In 2007, more than 40 employees received an award.

SAS Institute Inc.

This Cary, N.C., software company offers a family-friendly package of benefits to boost employee morale and well-

to boost employee morale and wellbeing. Managers provide time off or create flexible work schedules so employees can meet family obligations.

/ This automotive company's new "Associates Helping Associates Helping Associates Torgaran was designed to provide Workers at the

Deerfield Beach, Fla., con pany who have lost a love one can get help with funeral expenses or use of to corporate aircraft. Those who have lost homes as a result of fire or flood are of fered temporary housing

The Mitre Corp. NO. 4 FOR TRAINING NO. 10 FOR RETENTION

No. 10 ron RETENTION
The popular retirement contribution
plan at this not-forprofit science and engineering organization,
based in McLean, Va,
has a whopping 99%
employee participation rate. The company
provides generous
matches of employee
contributions.



This school's home furf

- University City - is one
of the most famous conmunities in Philadelphia
The school has its

Activities include a campuswide fundraising celebration and a 1,645-member lunchtime employee walking group called Penn Walkers

Rackspace US Inc.

"Rackers," as employees at this San Antonio-based managed hosting services company are called, enjoy flexible hours and a casual dress code. They are given 15 paid vacation days and one paid day off every year to perform

volunteer work.

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Mount Carmel Health System

COMPASSION

builds a solid family team

When Terri Roski's have it here," she says. husband died a few years ago, her fellow IT workers at Mount Carmel Health System loed offset some of the funeral expenses. "I can't even heals to express my appreciation to them," she says. Her co-workers' generosity strates the kind of kina systems analyst.

ship that exists among the 125 But since then, Sheets has IT staffers at the Columbus. helped nurture a more supportive Ohio-based medical services vider. "If someone's having a bad day or issues at home. we're a very caring department," says Les Boyer, directo of applications support. "I think candidates must first meet people appreciate the compaswith a peer group of IT worksion that we have here." ers at Mount Carmel, "If the To further cement that bond, the IT group puts together a

think you'd find that flevel of closeness) in most departents to the extent that we But Mount Carmel's IT unit hasn't always been locked in a big group hug. When Cindy Sheets took over as CIO in

says Gina Cook, director of

1999, IT's annual turnover rate was an abysmal 46%, "There was a lot of finger-pointing back then," says Sheets, who joined the company in 1989 as

wirenment, and turnover has fallen to less than 2% recently. That family feeling extends into the IT organization's twostep recruitment process. Job peer group doesn't recommend them, [senior managers] never see them," says Sheets.

- THOMAS HOFFMAN

MSecurian Financial Group Inc. NO. 5 FOR TRAINING

Training is a key part of the worker satisfaction equation at this St. Paul, Minn,based financial services and insurance company, Each IT worker had 13 train-

ing days in 2007. and 16% of IT workers were promoted.

FOR TRAINING

the Alternative Workplace Program, which gives em the option of

extensive quide is helping IT

The core values at this ployees to be collaborative. Both senior business and IT

back, helping to and enable the flow of in

Sun Microsystems Inc.

Through an "open work" program at this computer giant. employees can work wherever they want

- at home, at the office or even in a coffee shop. At the end of fiscal 2007 more than 55% of its staffers were working away from the office at least one or

University of Miami

RETENTION This top-noted university, located in Coral Gables, Fla., just outside of Miami, keeps piling on the benefits. New this year is a free ent-planning service called LTSave that includes pl ning tools and expert advice. For a fixed annual fee, comple we their retirement asse nally mar a fraction of the price charged in But the IT department's true

mix of formal and informal

eatherings throughout the year.

claim to fame is its training program. Employees are offered a broad array of technical and managerial training opportunities. This past year, many IT staffers earned or renewed their certifications with vendors such as Microsoft and Cisco and with organizations such as the ITIL. rtification Management Board BICSI, HDI and the SANS institute. IT operates an Information ems Institute for customers that IT staffers can also attend. Other job-relevent training is also

15 Qualcomm Inc. It's hard to nick the best benefit at this San Diego-based wireless communications vendor. Employees can wear jeans to work and take companysponsored trips to the ballpark and racetrack. They also get a

beefy benefits package that includes free health care for them and their families.

16

two days a week.









Cox Enterprises EMPOWERING employees is second nature here

It says a lot about the business world when "nice" is met with suspicion. But after Greg Morrison, CIO at Cox Enterprises Inc., finished his secand interview seven years and at the Atlanta-based diversified media company, he asked for a third meeting to confirm that the company wasn't too good to be true. "I couldn't imagine the

environment being as nice as it seemed," he says.

The key Morrison says isn't found so much in Cox's written policies, although the company offers generous benefits, especially when it comes to tuttion reimbursement and maternity leave. It's more what he calls a concerted effort to do the right thing for employees, customers and the community.

Sarah Wheeler, senior information architect, says opportunities for artvancement are also plentiful When she igined Cox seven years ago, she was a lack of all trades. But Wheeler soon found herself moving into the area of usability, which has grown from 30 to over 100 employees during her tenure. "I was able to shape. my role and discipline inside corporate IT," she says. The culture at Cox is so "nice." Morrison says, that it's not for everyone. "If you had an actively aggressive personal style, you'd fail miserably here." he says. - MARY BRANDEL COMPUTER-WORLD CONTRIBUTING WRITER

E Sutter Health It's no surprise that employee wellness is a top priority at this network of hospitals and physicians. Sutter Health in Mather Calif. offers its workers a no-cost wellness coaching benefit called "I ive Well for Life." Workers who meet their objectives are eligible

for a cash incentive

bonus of \$500.

PO USAA

Perks are as numerous as they are varied at this mutual insurance company in San Antonio. There's even something for every sports enthusiast. including intramural programs, fishing events, golfing cages and instruction, and jogging trails. USAA's three fitness centers boast saunas and personal trainers.

22 FedEx Corp.

The "Purple Pipeline" program at this Memphis shipping giant was designed to strengthen the leadership skills of managers, break down silos and create career opportunities. Five of the first-year participants were promoted to director. and two have been hired into new management positions.

MITRE

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100 BEST

100

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American Express

Schedules are **FAST-PACED**

but flexible

a drum while sitting in a circle with agues was the last thing lleana Floueroa expected to be doing when she first joined the American Express Tech nologies (AET) group, the IT division of New York-based credit card and travel giant

American Express Co. "We do some wild team activities," she says, like the am-building exercise in which she learned to play the

But that's just one part of employee development efforts that also include both technical and busin training. "It's not just about technical training, but leadership competencies," says Figueroa, a vice president at AET and an 11-year veteran who worked her way up from

the business side.

Although the day-to-day work environment is hectic. Figueroa says flexible work hours, telecommuting opportunities, compressed-workweek arrangements and a program that allows employees to "buy" up to one extra week of vacation time a year help her keep work and home life in balance. (Employees "purchase" the time through a program that prorates their

AET's focus on family uso includes an emergency backup child care facility and on-site medical assistance. "As a mom, I am able to arrange my job so that I don't miss important events at home," Figueroa says. The company also offers commu nity outreach programs, inding a sabbatical program that pays AET staffers to nate their time to nonorofit

Figueroa says IT staffers are fully engaged with the business, both in daily work and in strategic planning. "We have a seat at the table." she says. "We're not just order-takers."

- ROBERT L. MITCHELI

American Fidelity Assurance Co.

surance company have the amonities of a small city at their feet. Within the Oklahoma City cam are a free medical clinic a fitness center and a restaurant. Yet the "All-Colleague" bonus still tops the list of benefits. Started about 12 years ago, the bonus is tied to

Employees at this the company's monthly financial life and health in scorecard. Workers can see whether the company is meeting projections and what it may take to push to new performance levels. IT benuses last year averaged approximately 20% of base salary, Fmm II executives to data entry personnel, all workers participate in the bonus program.

Principal Financial Group Inc. You can design your

own schedule at this Des Moines-based financial services provider. The firm offers an array of flexible

scheduling options. For example, workers can start or end their days earlier or later when they need to. lob-sharing and parttime positions are

This Basking Ridge: N.J.

Southern Co.

Ideas are gold at this Atlantaity distributor Almost four years ago, the IT protect the company's intellectual property, reward employees additional value from that innovation. All employees who submit an idea to the IT team's IP program eive a commemorative medal lion. If the invention is deemed ntable, each named inven

oranted, each inventor receiv an additional Inventor Award of \$2,000. Inventors are also eligible for a percentage of royalties received for external commercial use or sale of a patented item. Since the program's inception in 2004, 26 applications have been filed, with eight more in progress as of early this year, and 31 inventors have received a total of

\$74,500 in awards. The program seeded all of its annual goals in 2007, with 81 submissions, eight and \$1.28 million in IP value.

also available.

Partners System Inc.

This Wellesley, Mass,based health care provider empowers its IT team. Partners' IT workers are driving or playing key roles in all of the company's High Performance Medicine projects. which are patientcare-centric initiatives

at the top of senior

management's agenda.





San Diego Gas & Electric Co.

Hands-on access to HOT TECHNOLOGIES

Few people in IT would associate any a power company with the use of pioneering technologies. But working hands-on with new and innovative systems has been one of the big draws for Jeff Néchols and many of the

other 623 IT workers at San

Diego Bas & Electric Co., part of Sempra Energy Utilities. The director of networking and communications services says that, before joining San Diego Bas & Electric in sarry 2007, he thought the IT environment at the energy company "might be a bit sleepy. But it's not that at all – it's very cutting-edge," he says.

Hot projects include a \$572 million initiative called Smart Meter. Slated to last through 2011, Smart Meter will involve replacing roughly 1.4 million electric meters and 900,000 gas meters with digital meters to allow San Digo Gas & Electric customer to manage their energy con sumption more efficiently. The project includes using Zigbee wireless technology and service-oriented architec tures, says Enrique Villalobos, an IT architect. The Smart Meter project "is very com

ling" to work on, he says.
"There's interesting, transformative work that's going on here," adds Nichols. "For an IT guy, that's pretty big on the list."

The utility has also dem onstrated its willingness to experiment with new technologies - even when they don't materialize into production systems. For instance. the company noodled with broadband-over-power-line technologies in 2006 and 2007 to determine whether offering such services to its customers in Southern California made sense. Compa executives ultimately decide against the plan, "but it was a derful learning opportunity for our employees," says Vicki Zeiger, vice president of human resources.

The utility's willingness to expose its IT workers to new technologies represent a refreshing change from the way it used to be run. Ten or 15 years ago, we were more on the tail end of using information technology, yeary Villabbos. Now, there's more willingness by company executives to conduct proof-concept work using leading-edge technologies such as 50A, he says.

- THOMAS HOFFMAN

Fairfax County Public Schools

The IT department at this Virginia school system (the nation's 12th largest) believes in continuous, flexible learning opportunities. Its professional development program features a Webbased application designed to manage ongoing training for each IT employee.

33

518

June 2007, this Omana used financial services impany kicked off its own asson of the TV show The transfer of the

Almost 200 employees parto-ipated. Jeams competed to accomplish weight-loss goals and were assigned personal framets to assist with workouts, molivation and healthy eating. A total of 1,806 pounds were lost. First prize was a trip for tw

34 Aflac Inc.

This Columbus, Ga.based insurer makes life easier for workers with young

ers with young children. The company has two on-site child-care centers, with space for up to 540 children, making Aflac the largest provider of on-site corporate day care in Georgia. After-school pickup and homework assistance are

also offered.

35 This Fort Worth, Texas

This Fort Worth, Texas based freight company has launched a

at includes coursework topics such as vendo applier management, equining and advanced names, effective de istum akun, strategie plannion in program erisures. But chinical professionals eximical professionals eximically framed advances delificación.

Thank you

to the over 1,900 IT associates of The Capital Group Companies for making us *1 in the 2008 *Computerworld* 100 Best Places to Work in IT.

of, and humbled by, your continued dedication

apportunities in IT with the Capital Group, we invite you to visit



Ernst&Young Helping workers achieve

BALANCE at home and work

Fernandez friends ab her workplace, she finds herself bragging - not so much out the benefits package. which she says is on par wit those of many other large ms. Instead, she boasts about something that for mar panies is often more talk than reality: flexibility.

"I can work anywhere, volace," says Fernandez, a 10-year veteran at Secauca N.J.-based Ernst & Young. one of the auditing industry's Big Four. "I can be at my ce's softball game and h the tools to access the office If something comes up." Her friends' reaction, she says, is,

Wow, we don't have that." Support for flexibility com right from the top, with the executive board ensuring that managers promote it among loyees, says Fernandez. director of technology enab

ment services. "We believe our technology needs cans he met if IT professionals' ives don't work," says Rene Sussman, assistant director of technology communications and learning.

Another emphasis is inclusiveness, and according to Fernandez, E&Y succeeds in driving it into the culture.

"There's always been a oush for diversity, but with inlusion, there's a difference." she says. "You can meet the quotas, but that doesn't mean you're including people with other cultures and lifestyles in the thought leadership of the firm." The topic of inclusion comes up in every meeting and often in the company's

daily newsletter. Fernandez says she's found her place at E&Y. "It's the whole package that's made the difference to me," she says. "I don't see myself going anywhere else."

- MARY BRANDEL

Quintiles Transnational Corp.

This contract research organization. with headquarters in Durham, N.C. makes use of its global footprint Its 600 worldwide IT employees work in 27 countries, and all staffers including those in the U.S., report into units with global responsibility.

The process of hiring new

mme whether a person is

candidate might interview with five to seven people

The IT unit at this Mitwauker

all staffers. Here's how it

Mational Information Solutions Cooperative Inc. A new "benevolence

committee" at this Lake Saint Louis. Mo., data processing and billing service helps employees and their families in times of need

The funds come from employee contributions, which are matched by the company.

Sacramento Municipal Utility District MO 7 FOR REMETITS.

Work/life balance programs at this California utility include access to a subsidized, fully staffed gym on-site:

a subsidized "healthy cafeteria meal of the day"; and many wellness seminars and programs.

Profiles continue on page 38.

Raytheon People



Innovation. Driven by Diversity.



As one of the world's foremost technology leaders, Raytheon takes on some of the most difficult challenges inaquitable. Meeting those challenges requires a diversity of talent, ideas, backgrounds, opinions and bellefs. Diversity helps our teams make better decisions, build stronger customer relationships and feel more inspired, supported and empowered. It is both a catalyst and an essential advantage to everything we do.

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Customer Success Is Our Mission





HOW WE CHOSE THE BEST PLACES

FOR THE 19TH YEAR in a row. Computerword conducted a survey to identify the 100 best places to work for IT professionals. In March 2007, Computerworld started accepting normations from U.S.-based companies. Part licipants were asked to provide the name and conduct information of the appropriate individuals who were familiar with or had access to employment statistics and financial data.

In January 2008, the contacts at the nominated companies received a 100-question survey asking about their organizations' average salary and honus increases, percentage of IT staffers promoted. IT staff turnover rates, training and development programs and the percentages of women and minorities in IT staff and management positions. Information was also collected on how each organization rewards outstanding performance, as well as retention programs and benefits. Information from these surveys was used in compiling the 100 company profiles.

Upon completion of the company survey, all participating companies were required to obtain feedback from their employees and were e-mailed instructions on selecting a random sample of their U.S.-based full- and part-time IT staffs. The responses to the employee survey went directly to a third-part vesserch vendor.

Topics covered in the survey included satisfaction with training and development programs, base salary, bonuses, health benefits and work/life balance. In addition, employees were asked to rate morale in their IT departments and the importance of various benefits.

importance of various benefits. A fabrial of 313 IT for employees sure your feet of the employee sure you from the final ODO companies selected. The normination survey, you must be final of employee survey were all conducted via the internet. The company survey and employee survey were all conducted via the internet. The company and employee survey were all conducted via the internet. The company and employee survey profit on the company and employee survey profit of the company and employee and the company and employees and employee and employees and empl

a minimum of 50 IT employees.
The top five lists (page 41) show the best of the best – the organizations that excel in five areas of employment, diversity, career development, retention, benefits and training. To determine the lists, we considered the following:

DIVERSITY: Percentage of women and minorities in staff and managerial positions. TRAINING: Average number of

training days and average cost of training per IT worker per year. CAREER DEVELOPMENT: Mentoring programs and tuition reimbursement for college classes and technical certifications. RETENTION: Frequency of employee satisfaction surveys.

turnover rate, promotions and communication initiatives. BEMEFITS: A range of benefits, including sabbaticals and health and vision benefits.

In scoring the responses from the surveys, company results were weighted based on employees benefit-importance ratings in the employee portion. Approximately one-half of the total scoring system is based on employee responses, with the remaining half based on the survey of company benefits and other programs.

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(O Make our faither

A GRICULTURE

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2007 A SUJC

InformationWeek







Employee Scorecard

WHAT'S MOST PORTANT ABOUT YOUR JOB?

PERCENTAGE OF RESPONDENTS

Being fairly 94% for the work I do

Working in a challenging 93%

Having access to training and opportunities that

further my skills Having the means and opportunity to further 88% my career

Being able to work with cutting-edge 74%

technologies Working with a group of people who are culturally and ethnically diverse, with a range

HOW DO YOU RATE YOUR IT DEPARTMENT'S

MORALE?



HOW DO YOU RATE YOUR WORKPLACE STRESS LEVEL?



HOW DO YOU RATE JOB SATISFACTION

PERCENTAGE OF EMPLOYEES WHO ARE VERY SATISFIED OR SATISFIED WITH

Training and developmen 740/ programs Health benefits 77% Base salaries 74% Work/life balance 74%

WHAT'S THE BEST

Ronuses

60%

BENEFIT?

Paid vacation 78% Health insurance 71% Profit sharing/employee stock ownership program/ 401(k)/403(b) plan 5196 Flexible hours 45% 44%

Telecommution

NOT THE BEST PLACES SURVEY FROM THE TIME, 100 OF CANVATIONS SELECTED

Congratulations... DTE Energy IT professionals

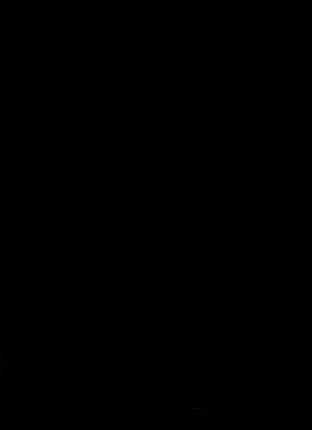
DTE Energy



The Power of Your Community

e = DTE®









WHAT'S MOST

HOW DO YOU RATE YOUR IT DEPARTMENT'S MORALE?



HOW DO YOU RATE YOUR WORKPLACE STRESS LEVEL?



HOW DO YOU RATE JOB SATISFACTION FACTORS?

PERCENTAGE OF EMPLOYEES WHO ARE VERY SATISFIED OR SATISFIED WITH:

WHAT'S THE BEST BENEFIT?

Congratulations... DTE Energy IT professionals

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The Power of Your Community





SEIEncouraging

RISK, accepting FAILURES

About two years ago, as the development barn ment team worked intensely to move a software project into production, a group of co-verticers swarmed about in costumes, filming a skit to be played at the celebration party - once the project was successful. If that seems a bit pressume

If that seems a bit presumptuous, it also reflects the investment company's culture of embracing risk. "They didn't do that when I worked on Wall Street," says Jim McBride, head of application development for SETs Global Wealth Dickstra team

Wealth Platform team. But success isn't guaranteed, and at SEI, failure is also an option. Management worries less about minimizing downside risk and more about optimizing outcomes. "It's OK to have e couple of failures if you're chasing the upside," McBride says.

SEI has no multilavered organizational chart. The IT department is an open exnanse of floor snace with no cubicles, Instead, hundreds of desks are on wheels, end staffers move daily to form ad hoc groups. In the SEI culture, those who perform well advance quickly, gaining blager roles on higherprofile projects. "You can drematically expand your responsibilities over a short period of time because the structure is so flexible."

says McBride.

If advancement is the uttimate revard, the benefits don't hart either. The rural campus in Oaks, Pa., located about seven miles from King of Prussis, includes running and hiking trails, e child care center and an in-house gym. People might take e break at any time of the day for a workout, which McDride says took some getting used to efter working in a buttoned-

down environment.

"For me, it's been a great change," he says.

- ROBERT L. MITCHELL

45 Cummins Inc.

This global power company, based in Columbus, Ind., strongly supports equal benefits coverage for all of its employees. For example, the domestic-partner benefits are an extension of traditional benefits and include employees' partners who aren't leval spouses.

46

them families are offered

Reservations can
be made through a special
Web site or by calling the
Feam Member reservations
desk. Rates vary across the
California-based company's
mearly 3,000 hotels but can
be as low as \$29 per might.

Travelers, resorce! Workers

at this plobal hotelier and



This insurance company, hased in Warren, N J., just 35 miles outside of Mainhattau, uses the lederated If model to create strong alignment with the business and new opportunities for its IT staffers. In fact, IT workers regularly have the

partment has also launi a formal enterprise proj

4B USinternetworking Inc.

This Annapolis, Mdbased company cites a high 'hoomerang' number — the number of employees rehired after choosing to leave the company for other opportunities. "I truly missed the camaraderic," says one such re-

missed the camaraderie," says one such rehire, project manager Bob Dorman.

Edward D. Jones & Co.

to modivate to modivate to modivate to modivate to modivate to modivate to force: Any employee of this financial services firm has the potential to become a periner. St. Leuis-based Edward Jones to the last remaining parties risk parent to the last remaining to the last

all levels – roughly one-third of its full-time staff. Lare likenass, IT department based or vendor managament, arrived at Erbarrd-Joses in 2002. "They offered me a fair stafer," I've been able to participate to the full-time beauting of the the full-time to the salary, the same, "This is a company," she says. "This is a company," he will be company to the company of the Its owners, and we tithy do because we own a share, a part, of the company."

49 Texas Health Resources Inc.

IT workers at this Arlington, Texasbased nonprofit health care system see how the work they do affects patients' lives. All IT staffers spend half a day shadowing clinicians through their regular sched-

their regular sched ules. This takes the equivalent of 8,000plus man-hours.

5() 18,316 254 This global consultin

This global consulting from McLean, Va., has built a structure too keeping it it workers engaged. By requilarly for ecasting business needs, the company dentihose changes in functional roles and new technology.

As a result this turecusting, three areer tracks have recently



I have a well-defined career path.



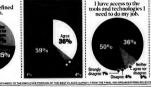
My company is a great place to work in IT. 36%













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VHA offers an exceptional employee benefits package that includes comprehensive insurance coverage, 401(k) investing, flexible scheduling, volunteer program and tuition reimbursement. Visit www.vha.com/careers.



SEI

Encouraging RISK, accepting FAILURES

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legal spouses.

NV-8 8 xtictre and

46

Travelers, rejoice! Workers

Reservations can

at this global hotelier and

Web site or by calfing the

Team Member resetvations

Cairfornia-based company's

nearly 3.000 hotels but can



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Bob Dorman



Edward D. Jones & Co.

Here's a way to motivate to become a partner. St. Louis-based Edward Jones is the last remaining partnership among the large New York Stock Exchange securities from. In 2007, the company extended a \$200 million partnership officing to near-to-100 million par

all levels - roughly one-third of he half-time staff. Lam himness, If department leader of vendor management, arrived at fabourd Josen in 2002. They offered me a fair salary. I've been able to participate the hadden beautiful to the salary, and the hadden participate in the handle papel into. Part of our culture is to their the coverar, and we truly do because we own a share, a part, of the company."

Texas Health

IT workers at this Arlington, Texasbased nonprofit health care system see how the work they do affects patients' lives. All IT staffers spend half a day **shadowing** clinicians through

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I have a well-defined career nath.



My company is a great place to work in IT.





There are opportunities for career growth at my company.









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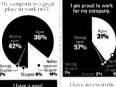
VHA offers an exceptional employee benefits package that includes comprehensive insurance coverage, 401(k) investing, flexible scheduling, volunteer program and tuition reimbursement. Visit www.vha.com/careers.







Employee Scorecard disagree

















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VHA offers an exceptional employee benefits package that includes comprehensive insurance coverage, 401(k) investing, flexible scheduling, volunteer program and tuition reimbursement. Visit www.vha.com/careers.





Employees stay pút,

thanks to a **CULTURE OF** RESPECT

to pin down a single reason why a particular company is a great place to work. At The Online Computer Library Center (OCLC), it

It can be hard

boils down to a company culture that combines respect for employees and a strong familial atmosphere.

The average tenure an OCLC's 1.300 worldwide staffers is 14 years, and the turnover rate is relatively low, at just 10%, says Karen Worthington, human resources manager at the Dublin, Ohio-based provider of connectivity services

for public and academic For some of the company's 550 IT staffers, one of the key differentiators is a culture that fosters a spirit of

where people's opinions matter.

"When you're at work on a project, pretty much everyone has an equal [say in al decision, no matter what your role is," says Bob Pearson, a development manager who's been with the company for 21 years.

For developer Jim Pennington, it all comes down to working with great people. "If I didn't like the peop I worked with, I wouldn't have been here 30 years,"

- THOMAS HOFFMAN

IN CAREER DEVELOPMENT

Board of Trade strives to

CME Group also sponsors a

Temple University NO. 8 IN DIVERSITY

This top-rated university in Philadelphia is working to expand its research base, and that's driving technology expansion. With more than 34,000 students enrolled it has the largest university computer learning center in the nation. with a price tag of more than \$15 million.

Paychex Inc. The wellness program at this Rochester. N.Y.-based payroll accounting firm (the second-largest in the U.S.) aims to cover ev-"Eat Well, Live Well"

ery aspect of employee health. During a recent challenge, the IT group held healthy luncheons and organized walking groups to do lunchtime laps around the parking lot.



₹ Apollo Group Inc. HO 6 IN CAREER DEVELOPMENT

In addition to its regular training budget, this Phoenix-based parent company of the University of Phoenix and Axia College offers all active full-time regular employees a 100% tuition waiver at any of Apollo Group's schools, starting on their date of hire.





Employer Scorecard

which offers the Best Benefits?

TOP 5 BENEFITS PERCENTAGE OF

WHICH IS THE BEST AT Retention?



P & RETENTION

WHICH ARE THE BEST AT

AT A TYPICAL BEST PLA vneo IT staffers

finority IT staffers

WHICH ARE THE BEST FOR Career Development

AT A TYPICAL BEST PLACE fler IT staffers formal Survey IT staffers about job satisfaction once a year 494

Training

A TYPICAL BEST PLACE . . .



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- · a Fortune 150 company with state-of-the-art products, technology and services.
- . the largest nuclear operator in North America with Sis billion in annual revenue and a
- workforce of approximately 18,000 employees. · a diverse corporation in the business of power marketing, energy delivery and nuclear operations.
- named in Rusiness Week magazine as one of the "Best Places to launch a Career."
- · included, for the third year in a row, in the InformationWeek 500, a ranking of the United States' most innovative IT organizations.
- · known for it's comprehensive training and benefits including a flexible work program.
- · always looking for top talent.

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Exelon.

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COMPUTERWORLD TO WORK IN IT

Employer Scorecard

WHICH OFFERS THE BEST Benefits?

H. Lee Moffitt Cancer Center & Research Institu

TOP 5 BENEFITS PERCENTAGE OF COMPANIES THAT OFFER

100% Fleeble hours Employee assistance 100% programs Health insurance 100% 100% Paid vacation

0896

reimbursement WHICH IS THE BEST AT Retention:

College turtion

ersity of Miami

TOP 5 RETENTION

PERCENTAGE OF COMPANIES THAT OFFER Competitive benefits 1009 Competitive salaries 9896 Tuition reimbursement Work/life balance 98% Flexible work hours 98%

WHICH ARE THE BEST AT Diversity?

Mount Carmel Health System

The Capital Group Cos.

University of Pennsylvania AT A TYPICAL BEST PLACE THE WORKEDORE IS COVERED. Women IT staffers 330% Women IT managers 32%

Minority IT staffers Minority IT managers 1700 HICH ARE THE BEST FOR

27%

Career Development

Cerner Corp. reference IIS Inc.

Mobile USA Inc. CME Group Inc.

AT A TYPICAL REST PLACE MANAGERS VALUE STAFFERS

Offer IT staffers formal mentoring programs Survey IT staffers about inh satisfaction once a year 49% Survey IT staffers about iob satisfaction more than once a year

WHICH OFFER THE MOST Training:

rian Financial Group Inc. A TYPICAL BEST PLACE . . .

nends \$2,118 per Spends 52,110 pc.
IT employee on training Offers 8 training days annually for IT staffers



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+ the largest nuclear operator in North America. with Sig billion in annual revenue and a

workforce of approximately 18,000 employees. · a diverse corporation in the business of power

marketing, energy delivery and nuclear operations. named in Business Week magazine as one of the "Best Places to launch a Career."

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Genentech

RISK-TAKING and INNOVATION

are valued and encouraged

cure for canof urgency is important. But ine that intense sense of mission with an informal. nhierarchical workplace that offers plenty of perks. and you've got Genentech inc.

"Cancer is the competition" that's who we're trying to beat," says Todd Pierce, vice president of corporate IT. It's just that the serious mission is being pursued at a place that also offers doggie day care, a shuttle bus through out the San Francisco Bay Area and freshly made sushi at kinch.

The culture in IT at the 30-year-old biotech firm is very open to risk-taking. innovation and trying new approaches, Pierce says, especially when it comes to providing scientists and other employees with tools for mobility and collaboration.

For instance Genentech will be one of the first pharmaceutical companies to roll out Salesforce com to its commercial business, and it plans to deploy 3,000 Apple Phones to its employees In the first week the IPhone

was available. Pierce says. IT had seven applications for It already developed. It's also in the process of moving to Google's calendar and e-mail

Ideas don't get hindered by hierarchy: Pierce has established a requirement that IT be made up of only 10% management, "We don't want an overmanaged workforce," he says. "In many organizations, the energy gets lost to bureaucracy."

Systems administrator Ben Zuffi agrees that the culture encourages Innovation. "You're not burdened with hoops to jump through," he

- MARY BRANDEL

DTE Energy Co.

aree work orne this Detroit-based en pany, which serve n, lets its employed then they've done a

eers gauge how best mize each employee

(10) T-Mobile

USA Inc. NO. 4 IN CAREER DEVELOPMENT NO 9 IN REMEETTS

Every employee at this Bellevue, Wash,based telecommunications company is eligible for incentive nay. The quarterly

pay-for-performance bonus starts at 10% of annual base pay and increases based on

level, responsibility and tenure

Center MyDey

lic forum. One opportunity is

ment consiste

the Alex Dow Award, which recognizes outstanding

with the company's resp

sibilities as an investor-

owned utility and exemplifi its core values and operation

principles. Also, the Sarah Sheridan Award honors

employees who provide out-standing customer service.

Penn National Insurance

ment at this insurance firm Pa., offers informal "Tech iks" throughout the year. ven by IT volunteers, the s can be overviews of the logy being used on cur ion of how tech gy is being used by and reryone in the IT di

so high that additional sesher key benefit: in 2002. er a new con ard two of ect-related and the other ed on personal deve ment. Approximately 20% of the total staff is eligible for an verage payout of \$10,000.

62 Anheuser-Busch Cos.

NO. 10 IN BENEFITS Its most popular brands, Budweiser and Bud Light, have out this St. Louis brewer at the top of its market. Workers belo keep it there by treating friends and family to Anheuser-Busch products, using pre-

paid debit cards that are reloaded throughout the year.



By the Numbers

HIRING FORECAST

PERCENTAGE OF ORGANIZATIONS THAT IN 2008 EXPECT THE NUMBER OF U.S. BASED IT STAFFERS TO



NUMBER OF ORGANIZATIONS

WHERE THEY ARE

WHAT THEY DO PERCENTAGE OF ORGANIZATIONS IN FACH INDUSTRY



THE TYPICAL

Revenue	\$11B
Years in business	78
Total number of employees	31,778
Total number of IT employees	1,083
IT budget	\$323.4M

29% have merged with or acquired companies or divested business units since Jan. 1, 2007

15% of companies have an acquisition, merger or titure now pending

d their training d with 2007

7 % Average IT staff turnover rate in the latest fiscal year Average of IT staff promot-

COMPUTERWORLD



NortonHealthcare.com/careers

Thanks to our Information Services employees, Norton Healthcare has been recognized among the Commuterworld Best Places to Work in IT for the second consecutive year.

ed in the latest fiscal year





Raytheon Co.

TOP TALENT is recognized

and rewarded

When project manager Claire talks about what it's like to work in IT at Raytheon Co., one phrase keeps coming up: "Really cool." As in really cool recognition and compensation programs And really cool job flexibility. There's also a lot of respect for IT. She says one business unit president described IT as "the underlying support system for

Data center manager Tom my Lydon finds that level of appreciation rewarding, "The ness is giving IT an opportunity to have a seat at the table. You feel like a valued contributor here," he says. Waltham, Mass,-based Raytheon offers several pro-

everything Raytheon does."

grams to retain too talent. For example, the company paid the entire tab for Brockelman's master's degree, and her team's enterprise search proiect was selected for the annual CIO Excellence Award. "It felt

good to be recognized at that vel." Brockelman says. Employees can also get involved in community outreach programs like MathMovesU. in which they tutor high school students and support national

Career-planning benefits include "competency models" for evaluating IT roles. Employees use the models to compare their skills with those needed for a given role so they can then identify any gaps and set up a plan for acguiring the skills they lack.

Says Brockelman. "The message i get from Raytheon is. 'You need to decide where you want to go. We'll give you the tools to get there."

- ROBERT L. MITCHELL

GG CDW Corp.

This computer products reseller in Vernon Hills III. believes in aivina back and helping its workers do the same. Fligible employees can take one paid day off per year to perform community service. The company also matches up to \$1,000 of each worker's charitable contribu-

tions per quarter.



G CA Inc. Working at this giant software firm has its benefits for tech-hungry staffers. The IT group is considered a premier CA "customer," which means IT workers implement CA's software in-house before it ships to external custom-

ers. IT employees also regularly partner with colleagues from the business side.





Employee Scorecard

I have access to training and education to enhance my skills.



36% 50%

I am motivated to do my best.





This is a team-oriented company/department.

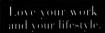












Behnd our would class insurance polices and well-known icon is Affac IT, a division recognized by Computo World as one of the 100 fees Places to Work in IT. Named among Fortune magazine a 100 fees Companies to Work For Affac offers the dynamic to Work For Affac offers the dynamic award woming IT work environment you are a suited for the property of the property of

Afaac

government

Exelon Corp.

Creating DIVERSITY

in staffing

Corp.'s IT tion is a great place to work, but its piedge to aintain a culturally and ethnically diverse IT staff is how the company truly stands out. "It's not just lip service," notes Tim Webster. a lead analyst at the energy services provider.

It helps that Exelon has onerations in ethnically diverse urban markets such as Chicago and Philadelphia. But that in itself doesn't guarantee an IT staff with varied backgrounds.

To help make that happen, Exelon's IT and HR leaders ensure that "we're always making decisions around recruitment, training and de-

velopment with the diversity goal in mind," says Silvana Tosic, Exelon's manager of IT plovee support.

The proof is in the pudding. Exelon reports that 26% of its IT managers are women. and 28% of its IT staffers are minorities.

Exelon's job rotation prooram also contributes to the company's diversity. "There's an ability for IIT staffers! to move from one area to anoth er, which brings a breadth of knowledge and experience" to various IT functional areas. says Cynthia Kubala, a lead analyst.

What else makes Exelon a great place to work? A commitment from IT executives such as CIO Dan Hill to ensure that the department is top-tier from an operational and efficiency standpoint, says Jay Cavalcanto, operational security manager at the Chicago-based energy

In addition, Hill and other IT executives make sure that Exelon's roughly 700 IT staffers are rotated regularly through various parts of the IT organization.

- THOMAS HOFFMAN

Comerica Inc.

Thie Auburn Hills Mich -based bank holding firm, which has about 460 branches, puts a

keen focus on diversity, Its Master of Diversity Awareness Program helps workers become aware of personal differences and recognize the benefits of diversity to the organization.

Stanley to become an independent company. As

IT employees at this earth

72 United Parcel Service of America Inc.

This Atlanta-based package delivery company seeks out its best workers and helps nurture their IT careers. Through its Technology Opportunity Program, high-

performing employees from all operations areas are trained to move into IT posts.

Northern Trust Corp.

This asset management firm in Chicago offers extensive employee benefits. But a strong sense of job security might be the most valued benefit: Northern is in growth mode. with expanding lines of products and services, plus new opportunities for the IT workforce.



The George Washington University

When it was founded in 1821 as Columbian College, this Washington-based school had 30 students Now it boasts more than 19,000 students enrolled in nine schools. A hig perk: Employees and their families can earn degrees at little or no cost.





Publix Super Markets Inc.

LONG TENURES

make for a tight team

Can you name the exact date you started your job with r current employer? Mike oher can: Aug. 23, 1993. And he says he's not the only one who closely tracks his anniversary with Publix Supe Markets Inc., a supermarket chain based in Lakeland, Fla. Maybe it's the celebrations held for every five years of employment, the 10 opport tunities per year to win a superior-performance award, or the holiday bonus equaling a month's pay. Or maybe it's the fact that employees are also part owners, thanks to

ship program, in which employees become fully vested after five years.

"If an associate stays past the three-to-five-year mark. our retention rates soar." says Booher, director of IT finance. "That's when they really start to see the benefit of associate

Take 16-year veteran Steve Reed, who started at Publix washing trucks and is now a senior systems engineer. "The longer you stay, the more you love it, partly because you're a stock owner and also because of the ownership you take in what you do," he says. The long tenures within the IT team create a camaraderie and culture that's "second to none," says Reed.

- MARY BRANDEL

Southern California Edison Co.

The IT department at this Rosemead, Calif., utility company, one of the largest in the state, was the first business unit to develop a comprehensive safety program that laid the foundation for an expanded program companywide.



is budgeted annually for Cornell University's course

Mew York-Presbyterian Hospital

This hospital is offering a new program for its employees; free access to a concierge service called Errand Solutions, An awardwinning program. Errand Solutions helps employees take care of tasks on their todo lists so they can have more free time outside of work.



They are also offered health and wellness benefits such

K National Rural Flectric Cooperative Association NO. 1 IN RETENTION

This Arlington, Va., organization, which represents consumerowned power cooperatives, has formalized its télework policy. and many IT staffers telecommute more than one day per

week, using technology to keep in touch.



Intermountain Health Care Inc.

y to work side by side dectors surross and lans to design, de-

H. Lee Moffitt Cancer Center & Research Institute

NO. 1 IN BENEFITS One of the National Cancer Institute's elite cancer centers. Moffitt offers employ-

ees a comprehensive health and wellness program. The Tampa, Fla., organization reimburses program participants up to 5% of the cost of their

medical benefits.

IN RETENTION IN TRAINING Founded in 1890, this 550 in Englewood N.J. offers

89

work/life balance. Also. promote people from within their departments

MGM Mirage

Opportunities abound for ADVANCEMENT and travel

You don't have to be backy to advance within the IT department at casino and resort operator MGM Mirage in Las Vegas. You do, however, have to ha a passion for IT - and the ness. Even entry-level PC chnicians are given oppor tunities to work as analysts or systems engineers and in other roles. "A lot of people gy, and they embrace it." come up through the ranks here," says Scott Wessel.

He should know. As direc tor of property development Wessel is responsible for IT initiatives related to new cor struction, but the 15-year veteran moved from the business side to IT along the way. Wessel's undergraduate degree was in hotel management, but MGM supported his interest in pursuing a master's degree in IT. That led to a lob in application support, as well as a stint in a new operation in Macau,

China, as acting director of IT. IT staffers can also work with a wide variety of technologies, including stateof-the-art systems like the IP-based devices going into every room in MGM's \$8.4 billion CityCenter resort. now under construction in Las Vegas, "The business leaders totally get it," says CIO Tom Peck. "They understand the importance of tech-

But in a global economy, one of the best perks may be the opportunities for travel. Last December, MGM sent 12 people to Macau to work on an IT project. "How many people get that opportunity to spend a month in China?" asks Wessels

As MGM continues to expand internationally, Peck expects the number of projects overseas to increase. "There's a ton of opportunity," he says.

- ROBERT L. MITCHELL

O()

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DEVELOPMENT This Kansas City, Mo.based clinical and administrative systems provider looks out for the health of its workers. Perks include a gym with an indoor pool, a Montessori facility and an on-site primary care clinic for employees and their dependents.

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U.S. Postal Service

Big projects mean big

Just about everything at the U.S. Postal Service is big. It is the second-largest employer in the world after the U.S. Department of Defense. It delivers more than 212 biflion pieces of mail each year.

And its 1,374 full-time IT employees get to work on some massive, and challenging, IT projects, says Debbie Judy, manager of IT value for the federal agency.

For example, Judy points to a single-instance SAP ERP deployment for the postal service's 7,000-plus human resources managers and staffers. The agency completed the project in September 2007.

Plus, unlike IT workers at most organizations, U.S. Postal Service IT employe often get to experience the results of their projects as consumers adds Karen Davis, a program manage for point-of-sale systems. "I don't think most companies are in that unique position like we are," she says. Even though the service is headquartered in Wash-Ington, it has seven IT sites around the U.S. Those regional locations have opened up opportunities for IT staffers such as Randy Agent. When he started with the postal service 24 years ago, Agent was a mail handler unloading trucks in Evansville,

postal service 24 years ago, Agent was a mail handler unloading trucks in Evansville, Ind. In 1997, he applied for a position as an IT resource analyst in Washington. He got the job and was promoted to IT program manager in 2000.

Agent took advantage of the postal service's fulfilon reimbursement program, earned his bachelor's degree in computer science and now serves as a liaison between the IT department and various business units. —THOMAS HOFFMAN 95

IN RETENTION IN TRAINING

Pick your vacation spot and pack your bags. After three years of service, employees at this Waltham, Mass, hased financial services company.

owned by the CEO. There are five properties from which to choose, including two condos at the Ritz-Carlton in Key Biscayne, Fla

96 Financial Industry Regulatory Authority Inc.

Money talks at this Rockville, Md.-based agency, the largest of the nongovernmental regulators for U.S. securities firms. It offers competitive

offers competitive compensation and a company-funded pension program.

Street Corp.

One hallmark of this Boston-based financial services firms IT unit is its Excellence in Action program. Led by a team of volunteers, it includes communication, employeedevelopment, and rewards and recognition programs.

Recipients of the CIO

Award receive money

and a memento.

22,000
542
This Derham N.C.-based health care system requires round-the-clock IT support and its IT workers are given the technology they need to make that support hances.

99 Automotive Resources International NO. 9 IN RETENTION

NO. 5 IN RETENTION
IT Workers at this
car leasing and fleet
management service,
in Mount Laurel, N.J.
are inspired to think
up great ideas. Suggestions that result
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SharkTank

Short Answer: No

Pilot fish in charge of IT support gets a call from the assistant to a manager who just bought a BlackBerry and wants to receive her business mail on it. Fish explains that the organization doesn't sup port personal equipment and doesn't support BlackBerries - the decision was made years ago to standardize on a different handheid. But fish offers to set up forwarding of corporate e-mail to an off-site e-mail address if the manager provides one, so it can get to her BlackBerry. "And that should be it, right?" says fish. No. Next to pop up in fish's mailbox is a request for a meeting about BlackBerry

assistant to ask if she didn'y got the e-mails. Yes, as a sistant says, but she and the options. "She explains that options." She explains that technology people, so they mend it explained in dample terms, "she says." I accept terms, 'she says. "I accept terms, 'she says. "I accept terms,' she says. "I accept them enting, New will have to see how! can nontechnically explain." Now don't support them." Of course, if I did, could this hortechnically person handle the BlackBerry anywey?"

Who Needs K?
Developer pilot fish's team creates a Web interface to retrieve some fairly sensitive mortgage data, with the help of an outside vendor, But

when the client tests the interface using the credentials provided by the outside vendor, client gets a certificate error, "The URL provided doesn't match the one that the certificate was registered under, and our software returns the error," says fish. "A series of e-mails and phone calls between parties finally results in this response from a senior analyst at the third party: 'Can you modify your software to just ignore SSL host name verification errors?' Fortunately, the client stepped up and indicated this would not be accentable."

What YouTube is For hospital IT pilot fish spots a doctor's request for access to YouTube. That's a blocked site, and fish calls the doc to explain that the hospital administration is very strict about what comes though the network, because the hospital deals with psychiatric and behavioral-disorder patients. "The doctor claimed that he needed access to the site for patient therapy," says fish, "It turns out that he is working with patients with emetephobia, the fear of womit He wanted to get access to the site to expose patients to various videos of people throwing up in order to desensitize them to the noxious stuff. The hospital administrators agreed, and we granted him an exemption for that Web site. I just feel sorry for the tech that might have to service that particular PC."

■ Don't fear the Shark — just send me a true tale of IT life at sharky@computerworld.com. You'll get a stylish Shark shirt if I use it.

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Reasons to Go

HY WOULD ANYONE ever want to leave?
As you read about the 100 Best Places to Work in I'T in this issue of Computerworld, that's a question worth keeping in mind.
No, not about those best places — they're stuffed full of rea-

sons why employees stay. But what about your shop? Why
would your employees want to jump ship?

Look, turnover is expensive. The real cost of replacing an employee can run as high as 150% of a year's salary once you add up the costs of recruitment, training and waiting for the new hire to get up to speed, plus the lost knowledge, damaged morale and extra work that comes when any employee bails out. That's on top of payroll - it's like paying for 1.5 phantom employees for every one that leaves.

Average annual turnover for those 100 Best Places to Work? It's a mere 7% — half the industry average. Being a great place to work turns out to be like money in the bank.

OK: What are the reasons your IT people would want to leave? And what can you do about them? Low pay. There may not be a lot you can do about salaries and raises; they're probably watched like a

hawk by your chief finan-

cial officer. But you have options. Example: Stop using your bonus pool as a way of supplementing salaries across the board. Instead, pay much bigger bonuses to fewer people for specific, publicly recognized accomplishments. Suddenly, a bonus means something. Everybody on your staff won't hit the jackpot, but everyone will have a chance — based on what he accommodishes.

Boredom. Sure, our job isn't to entertain our IT employees. But if someone is actually bored, something's wrong. Maybe it's the wrong job for him. Maybe it's the wrong company. Or maybe he could

III Turnover for the 100 Best Places is half the industry average. Being a great place to work turns out to be like money in the bank. be doing a lot more, but the current job won't let him. Hey, if he can polish off his week's regular work in 30 hours, reward that with opportunities for new projects, training, coaching fellow workers — whatever will motivate and challense him.

No training. Yeah, we all know the excuse: If we pay for training, employees will just take that new knowledge and leave for better jobs. But with no training, they'll get fed up and leave anyway - or rot away with outdated skills. So get creative. Pay for training with loans you forgive only after a certain number of months or years. If an employee is willing to pay out of his own pocket but needs time off for training, be as flexible as you possibly can. And compare the cost of retraining a current employee with the real cost

of a new hire. Suddenly,



training sounds a lot more cost-effective.

Carser dead end. You know all those people you can't promote out of their current jobs because you'll never be able to replace their skills — and can't pay what they're worth because they've topped out the salary range for their jobs? Put them in charge of finding and training their own replacements

No Bis. Insane hours, death-march projects and exhausting demands are just the way IT is, right? Baloney. They're just signs of badly managed IT operations and projects, and they're costing you dearly. So stop the madness. There are better ways to do almost everything in your IT shop—and the

ideas are your employees.
Would flextime make
them more effective?
Telecommuting? Better
technology? Improved
training? Things you'd
never think of? Ask. Learn.
Figure out what's possible,

people to look to first for

then ask some more.

Get rid of the reasons your staff wants to leave and you won't just have a better place to work in IT.

You'll have a better IT shop.

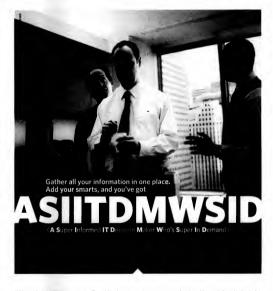
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